

THREE NEW SPECIES OF THE GENUS *Phaonia* FROM SICHUAN, CHINA (Diptera: Muscidae)

FENG Yan

(Hygienic and Anti-epidemic Station of Yaan Prefecture, Sichuan, Yaan 625000)

Abstract This paper describes three new species of the genus *Phaonia* R.-D., 1830 from mountainous region of Sichuan Province, China. one of them named as *Phaonia redactata* sp. nov. is in commemoration of Hong Kong's return to China on 1 July 1997 year. All the types specimens are kept in the Medical Entomology Collection Gallery, Academy of Military Medical Sciences, Beijing, China.

Key words Diptera, Muscidae, *Phaonia*, New species, China

1 *Phaonia pattalocerca* sp. nov. (Figs.1-3)

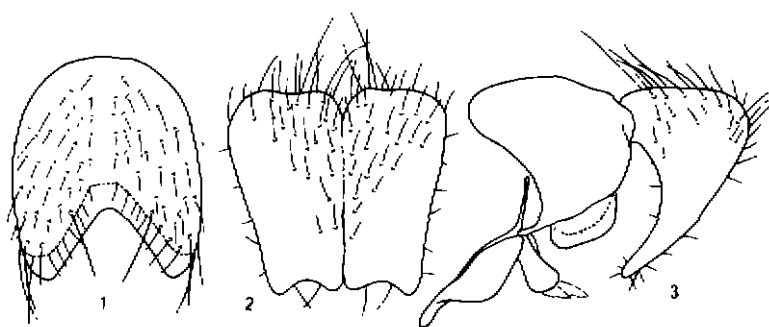
Male: Body length 5.0-6.5 mm. Head: Eyes sparsely covered with short cilia, frons about 1.6 times as wide as front ocellus at the narrowest part; *ori* 8-10, which reach to level of front ocellus; parafacialia about 0.58 times as wide as 3rd antennal segment (A_3); antennae fuscous, A_3 about 2.5 times as long as broad; arista plumose, the longest hairs more than a half width of A_3 ; epistoma equal to the level of frontal angle or a little behind; genae and metacephalon with black hairs, gena about 1/3 times the eye height; palpi dark, sometimes dark brown at basal part; prementum about 5 times as long as height. Thorax: Dark with densely yellowish grey to bluish grey pollen and 4 distinctly stripes, the inner a pair reach the scutellar sulcus; *acr* 2+(1-4), *dc* 2+3, *pra* about 2.4 times as long as 2nd *ntph*; scutellum dark, lateral margins and ventral surface bare; prosternum, notopleura, hypopleura, beret and anterior region of metapleura all bare; stigmata fulvous; *stpl* 1:2. Wings: Pale brown, tegula and basicosta testaceous, costal spine short and small; radial node bare; *m-m* cross vein almost straight; r_{4+5} and m_{1+2} veins aparted from each other at wing-margin; squamae and halteres brownish to red-brownish. Legs: Tibiae, mid and hind femora pale orange translucent, other parts fuscous-brownish; fore tibia with a median *p* seta; mid femur with a short and slender row of *av* setae, and a complete row of *pv* setae,

which become short at apical part; mid tibia with 2 *p*; hind femur each with a complete row of *av* and *pv*; hind tibia with 2 *av*, 1 *ad*, 6 *p* and a *pd* (calcar). Abdomen: Dark, densely covered with bluish grey pollen; tergites with a median black deformed stripe, without lateral spot; 1st sternite bare, 5th sternite normal form.

Female: Unknown.

Holotype ♂, Hanyuan (Mt. Jiaoding, 3 550 m; 29° 22' N, 102° 53' E), Sichuan Province, 21. June. 1989, collected by Feng Yan; paratypes 6 ♂♂, collected by Yang Shibin, others same as holotype.

Remarks: This new species is closely related to *Phaonia vividiformis* Fang, Fan et Feng, 1991, but the latter has the *ori* 7, which is not extending the level of front ocellus; its stigmata is small; haustellum thick and short; surstyli in male as long as cerci in lateral view; cerci inner process more longer than outer process at apical margin in posterior view.



Figs. 1-3 *Phaonia pattalocerca* sp. nov. ♂

1. 5th sternite, ventral view; 2. cerci, posterior view; 3. terminalia, lateral view.

2 *Phaonia redactata* sp. nov. (Figs.4-6)

Male: Body length about 6.5 mm. Head: Eyes sparsely covered with middle cilia; frons at the narrowest part about as wide as front ocellus; *ori* 12; parafacialia narrow, at middle about 0.38 times as wide as *A*₃; antennae black, *A*₃ about 2.31 times as long as wide; arista pubescent; genae and metacephalon with black hairs; gena about 0.24 times the eye height; palpi black. Thorax: Dark, scutum with 4 distinctly stripes, inner a pair to reach the front of scutellar sulcus; *acr* 3+1; *dc* 2+3; *pra* hair-like; scutellum dark; prosternum, notopleura, hypopleura, beret and anterior region of metapleura all bare; stigmata dark; *stpl* 1:3. Wings: Pale brownish; tegula and basicosta black; costal spine short and small; radial node bare; *r*₄₊₅ and *m*₁₊₂ veins aparted from each other at wing-margin; squamae pale brownish; halteres brownish-black to black. Legs: Black, fore tibia without *p* seta; mid femur with a short and slender row of *av* setae, a complete row of *pv* setae, which become short at apical part; mid tibia with 2 *p* setae; hind femur with a row of *av*, a row of *ad* and

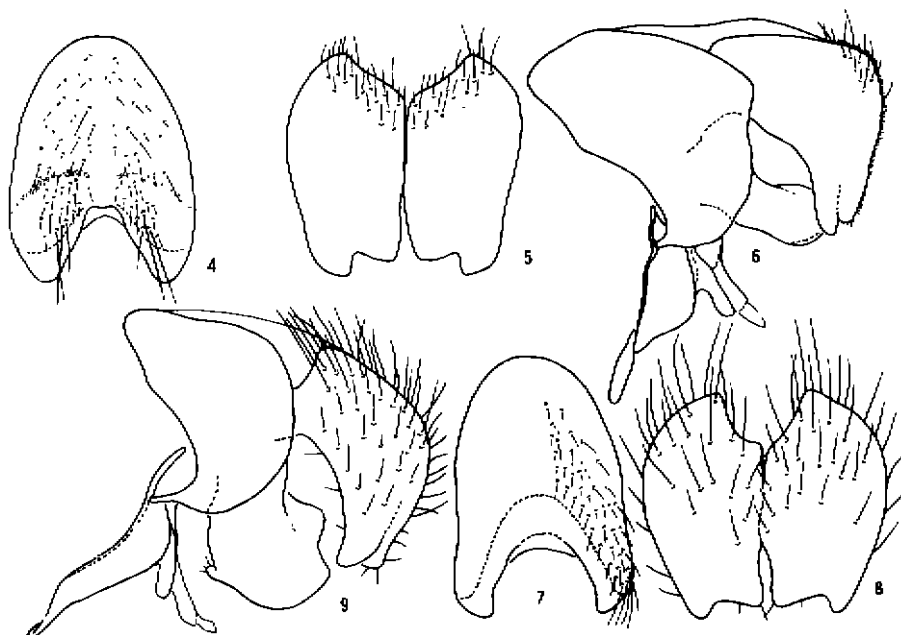
with 1 *pv* on submedian part, at basal part with about 20 slender of *p* setae; hind tibia with 1-2 *av*, 2*ad* and 1 *pd*. Abdomen: Dark, densely covered with bluish grey pollen; 3rd and 4th tergites with black median stripes, without lateral spot; 1st sternite bare.

Female: Body length about 6.0 mm, frons about $1/3$ (0.375-0.391) times the head-width at the middle part; 2 *ori*, 2 *ors*; costal spine about as long as *r-m* cross vein; *stpl* 1:2; other characters similar to those of the male.

Holotype ♂, Yingjing (Paocaowan, 2460 m, 29° 58' N, 102° 50' E), Sichuan Province, 2. June, 1990, collected by Feng Yan; paratypes 2♀ same as holotype.

Remarks: This new species in male is closely related to *Phaonia nititerga* Xue, 1988, but in the latter, the frons is about 3 times as wide as front ocellus at narrowest part; fore tibia with a *p* seta; *ori* 7; cerci without outer process at apex margin in posterior view.

3 *Phaonia biauriculata* sp. nov. (Figs.7-9)



Figs. 4-9: 4-6. *Phaonia redactata* sp. nov. ♂; 7-9. *Phaonia biauriculata* sp. nov. ♂

4, 7. 5th sternite, ventral view; 5, 8. cerci, posterior view; 6, 9. terminalia, lateral view.

Male: Body length about 4.5 mm. Head: Eyes covered with middle hairs; frons about 1.4 times as wide as the distance between posterior ocelli inclusive, about $1/13$ times the width of head too; *ori* 6, *ors* 1, whose length about 0.71 times of the ocellar seta; parafacialia about $1/2$ times the width of A_3 ; antennae tawny, 2nd segment dark-brown at apex part; A_3 about 3.3 times as long as wide; arista long plumose, the longest aristal hairs about 1.2 times as long as width of A_3 ; genae dark, about $1/5$

times the eye height; genae and metacephalon with black hairs; palpi dark. Thorax: Dark, densely covered with greyish pollen and with 4 wide black stripes, a inner pair not reach to scutellar sulcus; *acr* 0+1; *dc* 2+3; *pra* equal to or longer than post *ntpl* seta; scutellum dark; prosternum, notopleura, hypopleura and beret bare; prostigma yellowish-grey; *stpl* 1:2. Wings: Tegula and basicosta dark brown; costal spine short and small; radial node bare; *m*₁₊₂ straight; *m-m* a little straight; squamae pale white; halteres red brownish. Legs: Black; fore tibia without median *p* seta; mid femur with a short and slender row of *av* setae, a complete row of *pv*, which become short at apical part; mid tibia with 2 *p*; hind femur with a row of *av*, a complete row of *ad* and 3-4 short *pv* on apical part; hind tibia with 2 *ad*, 1 *av* and 1 *pd*. Abdomen: Dark and with rather thick grey whitish pollen; 3rd and 4th tergites each with a black median spot; 5th tergite with a black median stripe, without lateral spot; 1st sternite bare; 5th sternite normal form.

Female: Unknown.

Holotype ♂, Minshan (Mt. Meng, 1450 m; 30° 02' N, 103° 01' E), Sichuan Province, 27. May. 1990, collected by Feng Yan.

Remarks: This new species is closely related to *Phaonia antennicrassa* Xue, 1988, but in the latter, the frons is about 1/7 times the width of head; without *ors*; the longest hairs of arista shorter than the *A*₃-width; lateral lobe of 5th sternite about 0.68 times as long as basal part; cerci about 3.13 times as long as wide of its median part.

References

- Fan Zide, Zhao Jianming, Chen Zhizi *et al.* 1992. Key to the common flies of China. Peijing: Science Press. 419-456.
 Fang Jianming, Fan Zide, Feng Yan 1991. Notes on some new species of Phaoniinae from western China III. *Contr. Shanghai Inst. Entomol.*, 10: 141-145.
 Xue Wanqi 1988. Three new species of the genus *Phaonia* from Liaoning, China. *Acta Zootaxonomica Sinica*, 13(2): 161-166.

314-317

中国棘蝇属三新种

(双翅目: 蝇科)

冯 炎

(四川省雅安地区卫生防疫站 雅安 625000)

2367.4538

19

摘要 描述了采自中国四川的蝇科(Muscidae)棘蝇属(*Phaonia* Robineau-Desvoidy, 1830) 3 新种: 钉棘蝇, 新种 *Phaonia pattalocerca* sp. nov.; 回归棘蝇, 新种 *Phaonia redactata* sp. nov.; 双耳棘蝇, 新种 *Phaonia biauriculata* sp. nov.。其中 1 种命名为回归棘蝇 *Phaonia redactata*, 以示香港于 1997 年 7 月 1 日回归祖国纪念。各种的特征以及与近似种的鉴别均在文内作了记载。模式标本存北京军事医学科学院医学昆虫标本馆。

关键词 双翅目, 蝇科, 棘蝇属, 新种, 中国

中图分类号 Q969.453.8